PUBLIC NOTICE

Viskase Companies, Inc. has applied to the Tennessee Air Pollution Control Division (TAPCD) for a significant modification of their major source operating permit subject to the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations (also frequently referred to as Title V regulations). A major source (Title V) operating permit is required by both the Federal Clean Air Act and the Tennessee Air Pollution Control Regulations.

The applicant is Viskase Companies, Inc. with a site address of 106 Blair Bend Drive, Loudon, Tennessee 37774. They seek to obtain a significant modification to their major source operating permit. The modification includes the replacement of two coal-fired boilers with two natural gas-fired boilers. Emissions will be decreasing as a result of this modification. It should be noted that this facility has a current major source operating permit.

EPA has agreed to treat this draft Part 70 permit as a proposed Part 70 permit and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA's 45-day review period will cease to be performed concurrently with the public notice period. EPA's 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. Whether EPA's 45-day review period is performed concurrently with the public comment period or after the public comment period has ended, the deadline for citizen's petitions to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended (i.e., sequentially).

The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address:

http://www2.epa.gov/caa-permitting/tennessee-proposed-title-v-permits

A copy of the application materials used by the TAPCD and a copy of the draft permit are available for public inspection during normal business hours at the following locations:

Loudon Public Library
210 River Road
Loudon, TN 37774

and

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Also, if you require a copy of the draft permit it is available electronically by accessing the TDEC internet site located at:
http://www.tn.gov/environment/topic/ppo-air

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be made within thirty (30) days of the date of this notice and should be addressed to Ms. Michelle Walker Owenby, Director, Air Pollution Control Division, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243. Questions concerning the sources may be addressed to Mark Reynolds at the same address or by calling (615)-532-0554. A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to participate in these proceedings (or to review these filings) should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such participation. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 2nd Floor, Nashville, TN 37243, 1-866-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

TITLE V PERMIT STATEMENT

Facility Name: Viskase Corporation
City: Loudon
County: Loudon

Date Application Received: June 24, 2013
Date Application Deemed Complete: July 25, 2013

Emission Source Reference No.: 53-0003
Permit Nos.: 567428

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-3-9-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to ***Viskase Corporation*** and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the compliance status with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

Acronyms

PSD - Prevention of Significant Deterioration
NESHAP - National Emission Standards for Hazardous Air Pollutants
NSPS - New Source Performance Standards
MACT - Maximum Achievable Control Technology
NSR - New Source Review

I. Identification Information

A. Source Description

List and describe emission source(s): ***53-0003 Viskase Corporation***

53-0003-01: Three Boilers and one mobile source boiler – Boilers subject to Boiler MACT, 40 CFR Part 63 Subpart DDDDD
53-0003-03: Cellulose Casing Production – Source subject to Cellulose Products Manufacturing MACT, 40 CFR Part 63 Subpart UUUU
53-0003-07: Chemical Storage Tanks – Source subject to Cellulose Products Manufacturing MACT, 40 CFR Part 63 Subpart UUUU
53-0003-15:Lime Storage Tank
53-0003-21:Ash Collection System
53-0003-23: Generator – source subject to RICE MACT, 40 CFR Part 63 Subpart ZZZZ

B. Facility Classification

1. Attainment or Non-Attainment Area Location: *Area **is** designated as a non-**attainment** area for ozone and* $PM_{2.5}$.
2. Class I or Class II area: *Company **is** located in a **Class II** area.*

C. Regulatory Status

1. PSD/NSR: *This facility **is** a major source under **PSD.***
2. Title V Major Source Status by Pollutant

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?		Potential To Emit (TPY)
		Major Source Status	Non-Major Source Status	
PM	Yes	X		129.61
PM_{10}	Yes	X		
SO_2	Yes		X	18.93
VOC	Yes	X		1168.05
NO_X	Yes		X	71.40
CO	Yes	X		
Individual HAP	Yes	X		
Total HAPs	Yes	X		1162
CO_2e	Yes		X	83698.6

3. MACT Standards: This facility **is** a major source for HAPs. This facility **is** subject to a proposed or final MACT Standard.

   List MACT Rule(s) if applicable:

Boilers subject to Boiler MACT, 40 CFR Part 63 Subpart DDDDD
Cellulose Casing Production – Source subject to Cellulose Products Manufacturing MACT, 40 CFR Part 63 Subpart UUUU
Chemical Storage Tanks – Source subject to Cellulose Products Manufacturing MACT, 40 CFR Part 63 Subpart UUUU
Generator – source subject to RICE MACT, 40 CFR Part 63 Subpart ZZZZ

4. Program Applicability: Are the following programs applicable to the facility?
   PSD ***Yes***
   NESHAP ***Yes***
   NSPS *No*

II. Compliance Information

A. Compliance Status:
Is the facility currently in compliance with all applicable requirements? ***yes***
If no, explain.

B. Are there any applicable requirements that will become effective during the permit term? ***yes***
If yes, explain.
The facility is a major source for green house gases.

III. Other Requirements

A. Emissions Trading: *The facility **is not** involved in an emission-trading program.*
B. Acid Rain Requirements: This facility **is not** subject to any requirements in Title IV of the Clean Air Act.
C. Prevention of Accidental Releases: *yes*

IV. <u>Pulic Participation Procedures</u>

Notification of this draft permit was mailed to the following environmental agencies:

1. **EPA**
2. **North Carolina Dept. of Environment and Natural Resources**
3. **Knoxville Environmental Field Office**
4. **Knox County Department of Air Quality Management**

V. Significant Modification 1 to Title V Operating Permit 558700

A. A significant modification to title V permit 558700 is required because of a change to a process emission source. The proposed emission increase is below significant levels; however, there will be significant changes to the source requirements, which requires a significant modification to the title V operating permit.
B. The source is the cellulose casing production where two additional extrusion lines will be installed. The additional lines will require an increase in boiler usage. Also, additional tanks will be needed to supply the lines. These sources are subject to MACT and there are no new requirements as a result of adding the two lines. The increase in boiler use will require new permit conditions, which result from PSD avoidance by the netting analysis.
C. The control device (Bioway^{TM} V-Spring System biofilter) for the cellulose casing production source will be upgraded in the process. The filter media will be changed as well as an increase in filter media area.

VI. Use of multiple baseline vs. single baseline

The original application for this modification included rationale for the use of different baseline years for different pollutants to determine the baseline actual emissions to avoid the requirements of major New Source Review. Following receipt of comments opposing the use of multiple baseline periods, the Division researched the issue and concluded it was an acceptable approach based on the current state-effective regulations. However, during their review period EPA Region 4 advised TDEC that the State Implementation Plan (SIP) revision allowing the use of multiple baseline periods had not been formally approved into the SIP, even though the revisions were submitted in May 2009. TDEC discussed the concerns with the applicant, and the applicant submitted a revised application for the project that uses a single period for determining the baseline actual emissions. The final proposed permit contains more stringent limitations than the original proposed permit as a result of this change. Because the changes to the application and the permit are the result of comments received during the public and EPA review periods and the revised permit is more restrictive than the originally proposed permit, additional public participation is not required.

VII. Title V renewal application (permit 567428)

A renewal application was received in accordance with the previous permit. The application is a complete application, which includes appropriate individual forms for each source at the facility. The permit also includes notification that the environmental contact person has been replaced.

VIII. Permits Challenged before the Air Pollution Control Board

Three construction permits were issued as part of the production expansion where two additional extrusion lines were added. The expansion required a significant modification to the title V operating permit, as stated above in significant modification 1 to title V operating permit 558700. All of these permits were challenged before the Air Pollution Control Board by Breathe Clean Air Action Team (BCAAT). As a result, there is a final settlement agreement between Viskase, BCAAT, and TDEC. The settlement has two parts; 1, clarification language added to the operating permit which separates the MACT requirements from the Carbon Disulfide (CS_2) emission limit. The operating permit has two conditions (one with the CS_2 limit and one with the MACT requirements) each with independent compliance assurance methods. And 2, an emission reduction is realized for Hydrogen Sulfide (H_2S) from 315 TPY to 285 TPY.

IX. Title V permit Renewal was issued on March 10, 2015.

A. Significant Modification #1. Applications dated November 17, 2014, March 28, 2016, and April 22, 2016. This modification replaced two coal-fired boilers with two natural gas-fired boilers in source 53-0003-01. Conditions E4-1 through E4-20 were added to the permit. Conditions B5, E1, E2, E3-3 were also modified. Conditions E8-1 and E8-2 have been removed from the permit since the Ash Collection System (53-0003-21) has been removed. The CAM plan has been removed since it was associated with the coal fired-boilers and Ash Collection System.

TENNESSEE AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243

SIGNIFICANT MODIFICATION #1

OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations. The permittee has been granted permission to operate an air contaminant source in accordance with emission limitations, monitoring requirements set forth herein.

Date Issued: **March 10, 2015**
Date of Significant Modification #1: **DRAFT**
Date Expires: **February 29, 2020**

Permit Number: **567428**

Issued To:
Viskase Corporation

Installation Address:
106 Blair Bend Drive
Loudon

Installation Description:
Cellulose Food Casing Manufacturing Plant:
01- Three Boilers — **MACT Subpart DDDDD**
03- Cellulose Casing Production — **MACT Subpart UUUU**
07-Chemical Storage Tanks — **MACT Subpart UUUU**
15- Lime Storage Tank
21-Ash Collection System
23 - Generator — **MACT Subpart ZZZZ**

Emission Source Reference No.: **53-0003-01, 03, 07, 15, 21, 23**

Renewal Application Due Date:
Between June 4, 2019 and September 2, 2019

Primary SIC: **30**

Information Relied Upon:
Application dated June 21, 2013, and information in the letter dated August 25, 2014
Significant Modification #1 applications dated November 17, 2014, March 28, 2016, and April 22, 2016

_____
TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON TRANSFERABLE

POST AT INSTALLATION ADDRESS

CONTENTS

SECTION A
GENERAL PERMIT CONDITIONS

SECTION B
GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

CONTENTS

SECTION C
PERMIT CHANGES

SECTION D
GENERAL APPLICABLE REQUIREMENTS

CONTENTS

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

SECTION A

GENERAL PERMIT CONDITIONS

A permit issued under the provisions of paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

A1. **Definitions.** Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulation.

TAPCR 1200-03

A2. **Compliance requirement.** All terms and conditions in a permit issued pursuant to paragraph 1200-03-09-.02(11) including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act.

The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3. **Need to halt or reduce activity.** The need to halt or reduce activity is not a defense for noncompliance. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4. **The permit.** The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5. **Property rights.** The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6. **Submittal of requested information.** The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

A7. **Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

A8. **Fee payment.**

(a) The permittee shall pay an annual major source emission fee based upon the responsible official's choice of actual emissions or allowable emissions. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A major source annual emission fee will not be charged for emissions in excess of the cap (s) or for carbon monoxide.

(b) Major sources who have filed a timely, complete operating permit application in accordance with 1200-03-09-.02(11), shall pay allowable emission based fees until the beginning of the next annual accounting period following receipt of their major source operating permit. At that time, the permittee shall begin paying their annual emission fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees as stated under SECTION E of this permit. Once permitted, altering the existing choice shall be accomplished by a written request of the major source, filed in the office of the Technical Secretary at least one hundred eighty days prior to the expiration or reissuance of the major source operating permit.

(c) Major sources must conform to the following requirements with respect to fee payments:

1. If a major source choosing an allowable based annual emission fee wishes to restructure its allowable emissions for the purposes of lowering its annual emission fees, a mutually agreed upon, more restrictive regulatory requirement may be established to minimize the allowable emissions and thus the annual emission fee. The more restrictive requirement must be specified on the permit, and must include the method used to determine compliance with the limitation. The documentation procedure to be followed by the major source must also be included to insure that the limit is not exceeded. Restructuring the allowable emissions is permissible only in the annual accounting periods of eligibility and only, if the written request for restructuring is filed with the Technical Secretary at least 120 days prior to the beginning of the annual accounting period of eligibility. These periods of eligibility occur upon expiration of the initial major source operating permit, renewal of an expired major source operating permit or reissuance of a major source operating permit.

2. Major sources paying on allowable based emission fees will be billed by the Division no later than April 1 prior to the end of the accounting period. The major source annual emission fee is due July 1 following the end of the accounting period.

3. Major sources choosing an actual based annual emission fee shall file an actual emissions analysis with the Technical Secretary which summarizes the actual emissions of all regulated pollutants at the air contaminant sources of their facility. Based upon the actual emissions analysis, the source shall calculate the fee due and submit the payment and the analysis each July 1st following the end of the annual accounting period.

4. Major sources choosing a mixture of allowable and actual based emission fees shall file an actual emissions and allowable emissions analysis with the Technical Secretary which summarizes the actual and allowable emissions of all regulated pollutants at the air contaminant sources of their facility. Based upon the analysis, the source shall calculate the fee due and submit the payment and the analysis each July 1st following the end of the annual accounting period.

The mixed based fee shall be calculated utilizing the 4,000 ton cap specified in subparagraph 1200-03-26-.02(2)(i). In determining the tonnages to be applied toward the regulated pollutant 4,000 ton cap in a mixed based fee, the source shall first calculate the actual emission based fees for a regulated pollutant and apply that tonnage toward the regulated pollutant's cap. The remaining tonnage available in the 4,000 ton category of a regulated pollutant shall be subject to allowable emission based fee calculations for the sources that were not included in the actual emission based fee calculations. Once the 4,000 ton cap has been reached for a regulated pollutant, no additional fee shall be required.

5. Major sources choosing to pay their major source annual emission fee based on actual based emissions or a mixture of allowable and actual based emissions may request an extension of time to file their emissions analysis with the Technical Secretary. The extension may be granted by the Technical Secretary up to ninety (90) days. The request for extension must be postmarked no later than July 1 or the request for extension shall be denied. The request for extension to file must state the reason and give an adequate explanation.

An estimated annual emission fee payment of no less than eighty percent (80%) of the fee due July 1 must accompany the request for extension to avoid penalties and interest on the underpayment of the annual emission fee. A remaining balance due must accompany the emission analysis. If there has been an overpayment, a refund may be requested in writing to the Division or be applied as a credit toward next year's major source annual emission fee. The request for extension of time is not available to major sources choosing to pay their major source annual emission fee based on allowable emissions.

6. Newly constructed major sources or minor existing sources modifying their operations such that they become a major source in the midst of the standard July 1st to June 30th annual accounting period, shall pay allowable based annual emission fees for the fractional remainder of the annual accounting period commencing upon their start-up. At the beginning of the next annual accounting period, the "responsible official" of the source may choose to pay annual emission fees based on actual or allowable emissions or a mixture of the two as provided for in this rule 1200-03-26-.02.

(d) Where more than one (1) allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.

1. Sources that are subject to federally promulgated hazardous air pollutant standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31 will place such regulated emissions in the specific hazardous air pollutant under regulation. If the pollutant is also in the family of volatile organic compounds or the family of particulates, the pollutant shall not be placed in that respective family category.

2. A miscellaneous category of hazardous air pollutants shall be used for hazardous air pollutants listed at part 1200-03-26-.02(2)(i)12 that do not have an allowable emission standard. A pollutant placed in this category shall not be subject to being placed in any other category such as volatile organic compounds or particulates.

3. Each individual hazardous air pollutant and the miscellaneous category of hazardous air pollutants is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

4. Major sources that wish to pay annual emission fees for PM_{10} on an allowable emission basis may do so if they have a specific PM_{10} allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM_{10} emission basis, it may do so if the PM_{10} actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM_{10} emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM_{10} emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) shall also apply to PM_{10} emissions.

TAPCR 1200-03-26-.02 (3) and (9) and 1200-03-09-.02(11)(e)1(vii)

A9. **Permit revision not required.** A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

A10. **Inspection and entry.** Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or his authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

(a) Enter upon, at reasonable times, the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) As authorized by the Clean Air Act and Chapter 1200-03-10 of TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3.(ii)

A11. **Permit shield.**

(a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:

1. Such applicable requirements are included and are specifically identified in the permit; or

2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

(b) Nothing in this permit shall alter or affect the following:

1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;

2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or

4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.

(c) Permit shield is granted to the permittee.

A12(SM1). Permit renewal and expiration.

(a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days prior to the expiration of this permit. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.

(b) Provided that the permittee submits a timely and complete application for permit renewal the source will not be considered in violation of paragraph 1200-03-09-.02(11) until the Technical Secretary takes final action on the permit application, except as otherwise noted in paragraph 1200-03-09-.02(11).

(c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)3 and 2, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13. Reopening for cause.

(a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:

1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the permit expiration date of this permit, unless the original has been extended pursuant to 1200-03-09-.02(11)(a)2.

2. Additional requirements become applicable to an affected source under the acid rain program.

3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.

(d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, he is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he agrees or disagrees with the Administrator's findings. If he agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:

1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90 day time period.

2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.

3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13 (b) and Condition A13 (c).

4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), he shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how he should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7.

A14. **Permit transference.** An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:

(a) Transfer of ownership permit application is filed consistent with the provisions of 1200-03-09-.03(6), and

(b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

A15. **Air pollution alert.** When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR 1200-03-09-.03(1) and TAPCR 1200-03-15-.03.

A16. **Construction permit required.** Except as exempted in TAPCR 1200-03-09-.04, or excluded in subparagraph TAPCR 1200-03-2-.01(1)(aa) or subparagraph TAPCR 1200-03-2-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

A17. **Notification of changes.** The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.

(a) change in air pollution control equipment

(b) change in stack height or diameter

(c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

A18. **Schedule of compliance.** The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.
TAPCR 1200-03-09-.02(11)(d)3 and 40 CFR Part 70.5(c)

A19. **Title VI.**

(a) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.

2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.

3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

(b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

(c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program(SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

A20. **112 (r).** The permittee shall comply with the requirement to submit to the Administrator or designated State Agency a risk management plan, including a registration that reflects all covered processes, by June 21, 1999, if the permittee's facility is required pursuant to 40 CFR, 68, to submit such a plan.

SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1. **Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

(a) Where applicable, records of required monitoring information include the following:
1. The date, place as defined in the permit, and time of sampling or measurements;
2. The date(s) analyses were performed;
3. The company or entity that performed the analysis;
4. The analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions as existing at the time of sampling or measurement.

(b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B2. **Retention of monitoring data.** The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II

B3. **Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B4. **Certification.** Except for reports required under "State Only" requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

B5(SM1). **Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or

less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

B6. **Submission of compliance certification.** The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	Air and EPCRA Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303

TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

B7. **Emergency provisions.** An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology based emission limitation due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.

2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.

3. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

4. The permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in rule 1200-03-20-.03. For the purposes of this condition, "emergency" shall be substituted for "malfunction(s)" in rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in Division 1200-03 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8. **Excess emissions reporting.**

(a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later

discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:

1. Stack or emission point involved
2. Time malfunction, startup, or shutdown began and/or when first noticed
3. Type of malfunction and/or reason for shutdown
4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation
5. The company employee making entry on the log must sign, date, and indicate the time of each log entry

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

B9. **Malfunctions, startups and shutdowns - reasonable measures required.** The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60(Standards of performance for new stationary sources), 61(National emission standards for hazardous air pollutants) and 63(National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

B10. **Reserved.**

TAPCR 1200-03-20-.04(2)

B11. **Report required upon the issuance of a notice of violation for excess emissions.** The permittee must submit within twenty (20) days after receipt of the notice of violation, the data shown below to assist the Technical Secretary in deciding whether to excuse or validate the violation. If this data has previously been available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same twenty (20) day time period. The minimum data requirements are:

(a) The identity of the stack and/or other emission point where the excess emission(s) occurred;
(b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
(c) The time and duration of the emissions;
(d) The nature and cause of such emissions;
(e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;
(f) The steps taken to limit the excess emissions during the occurrence reported, and
(g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the twenty (20) day period specified shall preclude the admissibility of the data for consideration of excusal for malfunctions.

TAPCR 1200-03-20-.06(2),(3) and (4)

SECTION C

PERMIT CHANGES

C1. **Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:

(a) The change cannot be subject to a requirement of Title IV of the Federal Act or Chapter 1200-03-30.
(b) The change cannot be a modification under any provision of Title I of the federal Act or Division 1200-03.

(c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.
(d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in Rule 1200-03-09-.04.
(e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.
(f) The change shall not qualify for a permit shield under the provisions of part 1200-03-09-.02(11)(e)6.
(g) The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4 (ii)

C2. Section 502(b)(10) changes.
(a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7 day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.
(b) The written notification must be signed by a facility Title V responsible official and include the following:
1. brief description of the change within the permitted facility;
2. specifies the date on which the change will occur;
3. declares and quantifies where possible any change in emissions;
4. declares any permit term or condition that is no longer applicable as a result of the change: and
5. declares the requested change is not a Title I modification and will not exceed allowable emissions under the permit.
(c) The permit shield provisions of TAPCR 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4 (i)

C3. Administrative amendment.
(a) Administrative permit amendments to this permit shall be in accordance with 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.
(b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR 1200-03-09-.02(11)(e), TAPCR 1200-03-09-.02(11)(f) and TAPCR 1200-03-09-.02(11)(g) for significant permit modifications.
(c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.
TAPCR 1200-03-09-.02(11)(f)4

C4. Minor permit modifications.
(a) The permittee may submit an application for a minor permit modification in accordance with TAPCR 1200-03-09-.02(11)(f)5(ii).
(b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.
(c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.
(d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

C5. Significant permit modifications.
(a) The permittee may submit an application for a significant modification in accordance with TAPCR 1200-03-09-.02(11)(f)5(iv).
(b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6. **New construction or modifications.**

Future construction at this source that is subject to the provisions of TAPCR 1200-03-09-.01 shall be governed by the following:

(a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.

(b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR 1200-03-09-.02(11)(f)5(iv).

(c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d) 1(i)(V)

SECTION D

GENERAL APPLICABLE REQUIREMENTS

D1. **Visible emissions.** With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million Btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of twenty (20) percent (6-minute average) except for one six minute period per one (1) hour of not more than forty (40) percent opacity. Sources constructed or modified after July 7, 1992 shall utilize 6-minute averaging.

Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or his representative upon his request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.02(1)

D2. **General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

D3. **Non-process emission standards.** The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR 1200-03-06.

D4. **General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

D5. **Particulate emissions from process emission sources.** The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR 1200-03-07.

D6. **Sulfur dioxide emission standards.** The permittee shall not cause, suffer, allow, or permit Sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

D7. **Fugitive Dust.**

(a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, material stock piles, and other surfaces which can create airborne dusts;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

(b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or twenty (20) minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in Chapter 1200-03-20.

TAPCR 1200-03-08

D8. **Open burning.** The permittee shall comply with the TAPCR 1200-03-04-.04 for all open burning activities at the facility.

TAPCR 1200-03-04

D9. **Asbestos.** Where applicable, the permittee shall comply with the requirements of 1200-03-11-.02(2)(d) when conducting any renovation or demolition activities at the facility.

TAPCR 1200-03-11-.02(2)(d) and 40 CFR, Part 61

D10. **Annual certification of compliance.** The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are not subject to source-specific applicable requirements contained in State of Tennessee and U.S. EPA regulations. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)1 and compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit compliance certification for these conditions annually.

Revised 1/03

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

53-0003	**Facility Description:**	Viskase Corporation is a manufacturer of cellulose food casing. The synthetic meat casing operations involves producing alkali cellulose, viscose, and synthetic casing.

Conditions E1 through E3 apply to all sources in Section E of this permit unless otherwise noted.

E1(SM1). Fee payment: allowable emissions basis.

FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 53-0003

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	11.46	N/A	
PM_{10}	N/A	N/A	
SO_2	60.61	N/A	
VOC	1,168.48	N/A	Includes all fee emissions (with CS_2)
NO_X	41.44	N/A	
CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAP WITHOUT A STANDARD)*			
VOC FAMILY GROUP	N/A	N/A	
NON-VOC GASEOUS GROUP	N/A	N/A	
PM FAMILY GROUP	N/A	N/A	
CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAP WITH A STANDARD)**			
VOC FAMILY GROUP	1162	N/A	Fee emissions are included in VOC above; this material is CS_2 and is subject to 40 CFR 63 Subpart UUUU
NON-VOC GASEOUS GROUP	N/A	N/A	
PM FAMILY GROUP	N/A	N/A	
CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***			
EACH NSPS POLLUTANT NOT LISTED ABOVE	285	N/A	H_2S

The VOC emission total includes maximum allowable emissions from source 01 (boiler) of 3.77 tpy and maximum actual emissions from the glycerine aerosol application from source 03 of 2.7 tpy, from wastewater treatment from source 03 of 56.2 tpy of fugitive emissions, and from the chemical storage tanks of source 07 of 1.8 tpy of fugitive emissions.

NOTES

AAP The **Annual Accounting Period** (**AAP**) is a twelve (12) consecutive month period that **begins each July 1st and ends June 30th of the following year**. The **present Annual Accounting Period began July 1, 2014 and ends June 30, 2015.** The **next Annual Accounting Period begins July 1, 2015 and ends June 30, 2016.**

N/A **N/A** indicates that no emissions are specified for fee computation.

AEAR **AEAR** indicates that an **A**ctual **E**missions **A**nalysis is **R**equired to determine the actual emissions of:

(1) **each regulated pollutant** (Particulate matter, SO_2, VOC, NO_x , etc. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),

(2) **each pollutant group** (VOC Family, Non-VOC Gaseous, and Particulate Family), and

(3) the **Miscellaneous HAP Category** under consideration during the **Annual Accounting Period**.

***** **Category Of Miscellaneous HAP (HAP Without A Standard):** This category is made-up of hazardous air pollutants that do not have a federal or state standard. Each HAP is classified into one of three groups, the **VOC Family** group**, the Non-VOC Gaseous** group**,** or the **Particulate (PM) Family** group**. For fee computation**, the **Miscellaneous HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

** **Category Of Specific HAP (HAP With A Standard):** This category is made-up of hazardous air pollutants (HAP) that are subject to Federally promulgated Hazardous Air Pollutant Standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31. Each individual hazardous air pollutant is classified into one of three groups, the **VOC Family** group**, the Non-VOC Gaseous** group**,** or the **Particulate (PM) Family** group**. For fee computation**, each individual hazardous air pollutant of the **Specific HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(I).

*** **Category Of NSPS Pollutants Not Listed Above:** This category is made-up of each **N**ew **S**ource **P**erformance **S**tandard (**NSPS**) pollutant whose emissions are not included in the **PM**, **SO_2, VOC** or **NO_X** emissions from each source in this permit. **For fee computation**, each **NSPS pollutant not listed above** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

END NOTES

The permittee shall:

(1) Pay annual **allowable based emission fees** for the **present Annual Accounting Period.**

(2) Pay major source annual **allowable based emission fees**, as requested by the responsible official, in accordance with the above **Fee Emissions Summary Table** beginning July 1, **2015** of the **next annual accounting period**.

The Tennessee Air Pollution Control Division will bill the permittee no later than April 1 prior to the end of each **annual accounting period**. The annual emission fee is due July 1 following the end of each **annual accounting period**. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in condition A8(d) of this permit.

Payment of the fee due shall be submitted to this address:

TN Department of Environment & Conservation
Division of Fiscal Services
Consolidated Fee Section– APC (53-0003)
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 10th Floor
Nashville, TN 37243

TAPCR: 1200-03-26-.02 (3) and (9), and 1200-03-09-.02(11)(e)1 (iii) and (vii)

E2(SM1). **Reporting requirements**.

(a) Semiannual reports. The first report, since issuance of the permit renewal, shall cover the 6-month period from April 1, 2015 to September 30, 2015 and shall be submitted within 60 days after the 6-month period ending September 30, 2015. Subsequent reports shall be submitted within 60 days after the end of each 6-month period following the first report. All instances of deviations from permit requirements must be clearly identified in these reports and the reports must be certified by the responsible official.

These semiannual reports shall include:

(1) Any monitoring and recordkeeping required by conditions E4-5, E4-12, E4-19, E4-20, E5-1, E5-2, E5-3, E5-4, E7-1, E9-1, and E9-5 of this permit. However, a summary report of the data required by said conditions is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) The visible emission evaluation readings from condition E3-2 of this permit, if required. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(3) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**.

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to the Technical Secretary at:

The Technical Secretary
Division of Air Pollution Control
Knoxville Environmental Field Office
3711 Middlebrook Pile
Knoxville, TN 37921

Or electronically to APC.KnoxEFO@tn.gov

TAPCR: 1200-03-09-.02(11)(e)1.(iii)

(b) Annual compliance certification. The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D, and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(1) The identification of each term or condition of the permit that is the basis of the certification;
(2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;
(3) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in E2(b)2 above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and
(4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* Excursion shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** Exceedance shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

The first certification, since issuance of this permit, shall cover the 12-month period from October 1, 2015 to September 30, 2016, and shall be submitted within 60 days after the 12-month period ending September 30, 2016. Subsequent certifications shall be submitted within 60 days after the end of each 12-month period following the first certification.

These certifications shall be submitted to: **TN APCD** and **EPA**

The Technical Secretary
Division of Air Pollution Control
Knoxville Environmental Field Office
3711 Middlebrook Pike
Knoxville, TN 37921
Or
Email an electronic Portable Document Format (PDF) submittal to: APC.KnoxEFO@tn.gov

and

Air and EPCRA Enforcement Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, GA 30303

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

E3. General Permit requirements

E3-1. For sources required to maintain monthly logs, all data, including all required calculations, must be entered in the log no later than 30 days from the end of the month for which the data is required. For sources required to maintain weekly logs, all data, including all required calculations, must be entered in the log no later than 7 days from the end of the week for which the data is required. For sources required to maintain daily logs, all data, including all required calculations, must be entered in the log no later than 7 days from the end of the day for which the data is required. Data retention shall be in accordance with condition B2.

TAPCR: 1200-03-09-.02(11)(e)1.(iii)(II)II

E3-2. **Visible emissions.** Visible emissions from the sources at this facility, unless otherwise noted, shall not exhibit greater than twenty percent (20%) opacity except for one six-minute period per one (1) hour or more than twenty four (24) minutes in any twenty four (24) hours. Visible emissions from these sources shall be determined by EPA Method 9, as published in 40 CFR 60, Appendix A (six-minute average).

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996, as amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR: 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6)

Note: No. 1 fuel oil or K-1 kerosene is considered equivalent to No. 2 fuel oil when determining necessity of conducting opacity readings, if used exclusively.

E3-3(SM1). Insignificant activities

Insignificant activities as stated by the permittee in the Title V Application per Rule 1200-03-09-.04(5) are listed below. Additional insignificant activities may be added and operated at any time with the provision that a written notification shall be submitted to the Technical Secretary including an updated APC V.2 application form along with a truth, accuracy, and completeness statement signed by a responsible official. The permit may be updated to include additional insignificant sources by means of an administrative amendment, if necessary.

Activity	ESRN	Insignificant Under Rule
Burn-off oven	53-0003-20	1200-03-09-.04(5)(a)4(i)
Glycerin Aerosol OT softening agent use	53-0003-03	1200-03-09-.04(5)(a)4(i) and 1200-03-09-.04(5)(c)3

E3-4. Purchase orders and/or invoices for all VOC and HAP containing materials along with current material safety sheets must be maintained and kept available for inspection by the Technical Secretary or his representative. Records must be maintained on-site for a minimum of five years and must be made available for inspection by the Technical Secretary or his representative.

E3-5. Approval application requirements

This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application.

TAPCR 1200-03-09-.01(1)(d)

E3-6. EPA requirements and other state requirements

This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards.

TAPCR 1200-03-09-.03(8)

E3-7. Responsible Official, Technical Contact, and Billing Contact

a) The application that was utilized in the preparation of this permit is dated June 21, 2013, and signed by Responsible Official P.J. Glarrow, Plant Manager of the permitted facility. If this person terminates employment or is assigned different duties and is no longer a Responsible Official for this facility as defined in part 1200-03-09-.02(11)(b)21 of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions and/or covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.

b) The application that was utilized in the preparation of this permit is dated June 21, 2013, and identifies David Wasil, Plant Environmental Coordinator, as the Principal Technical Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Principal Technical Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.

TAPCR 1200-03-09

AA1-E3-7. Please note that Michael Yoder replaced David Wasil as Plant Environmental Coordinator via letter to TAPCD dated August 25, 2014.

53-0003-01:	**Source Identification:**	This source consists of three (3) boilers. All boilers use natural gas as the primary fuel with No. 1 and No. 2 fuel oil as back-up fuels. There is a mobile boiler that may be brought into service during routine maintenance periods of the three primary boilers. The three boilers are on a maintenance cycle interval of once every year (i.e. each boiler is serviced every year). Each boiler description is as follows: Boiler #3 - 55.6 MMBTU/hr boiler fired by natural gas as the primary fuel and No. 1 & No. 2 fuel oils as the back-up fuels. Boiler #4 - 52.185 MMBTU/hr boiler fired by natural gas as the primary fuel and No. 1 & No. 2 fuel oils as the back-up fuels. Boiler #5 - 52.185 MMBTU/hr boiler fired by natural gas as the primary fuel and No. 1 & No. 2 fuel oils as the back-up fuels. Substitute boiler – 10.468 MMBtu/hr boiler fired by natural gas as the primary fuel and No. 2 fuel oil as a back-up fuel. This boiler may be operated approximately four weeks per year during boiler inspection periods. This source is subject to 40 CFR Part 63 Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. Referred to as the Boiler MACT.

Conditions specific to source 53-0003-01.

E4-1(SM1). The stated design heat input for this source is 159.37 million British Thermal Units per hour (MMBtu/hr). A construction permit or Title V minor modification must be obtained before exceeding this capacity.

TAPCR 1200-03-09-.01(1)(d), application dated March 28, 2016

Compliance Method: The Technical Secretary may require the permittee to prove compliance with this Btu rating.

E4-2(SM1). Particulate matter (TSP) emitted from this source shall not exceed 3.77 pounds per hour and 5.21 tons during all intervals of 12 consecutive months. (This limit is less than that allowed by rule.)

TAPCR 1200-03-06-.01(7), application dated April 22, 2016

Compliance Method: Compliance with this requirement shall be assured by operating the boiler as designed and complying with **conditions E4-1(SM1) and E4-20(SM1)**.

E4-3(SM1). Nitrogen oxides (NO_X) emitted from this source shall not exceed 40.43 tons during all intervals of 12 consecutive months.

TAPCR 1200-03-06-.01(7), application dated April 22, 2016

Compliance Method: Compliance with this requirement shall be assured by operating the boiler as designed and complying with **conditions E4-1(SM1) and E4-20(SM1)**.

E4-4(SM1). To control emissions of nitrogen oxides (NO_X) from boilers 4 and 5, the permittee shall use only low-NO_X burners.

TAPCR 1200-03-06-.03(2), application dated March 28, 2016

Compliance Method: Compliance with this requirement shall be assured by installing and maintaining low NOx technology for boilers 4 and 5. The permittee shall retain copies of the manufacturer or vendor specifications for each burner subject to this condition. These specifications shall be kept at the source location and shall be made available for inspection by the Technical Secretary or his representative. The permittee shall be considered in compliance with this condition if the specifications for each burner indicate that NO_X emissions from fuel combustion are no greater than 50 pounds per million standard cubic feet of natural gas, when the burner operates at its design heat input capacity while burning natural gas. These specifications shall be retained for the life of the burner.

E4-5(SM1). Sulfur dioxide (SO2) emitted from this source shall not exceed 162.25 pounds per hour and 60.36 tons during all intervals of 12 consecutive months. Fuel oil with up to 1.0 percent sulfur may be used. Fuel oil may be used for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year. Fuel oil may be used for any duration during periods of gas curtailment or gas supply interruptions.

TAPCR 1200-03-14-.01(3), application dated April 22, 2016

Compliance Method: Compliance with this requirement shall be assured by operating the boiler as designed and complying with **conditions E4-1(SM1) and E4-20(SM1)** and by maintaining a supplier certification of the sulfur content of the fuel oil combusted.

E4-6(SM1). Volatile organic compounds (VOC) emitted from this source shall not exceed 3.77 tons during all intervals of 12 consecutive months.

TAPCR 1200-03-06-.03(2)

Compliance Method: The permittee shall assure compliance with the VOC limitation by assuring compliance with **condition E4-1(SM1)**. Compliance is assured based on the following emission factors: 5.5 lb VOC/10^6 ft^3 for natural gas (AP-42, Table 1.4-2) and 0.2 lb VOC/1000 gal for fuel oil (AP-42, Table 1.3-3).

E4-7(SM1). Carbon monoxide (CO) emitted from this source shall not exceed 36.70 tons during all intervals of 12 consecutive months.

TAPCR 1200-03-06-.03(2)

Compliance Method: The permittee shall assure compliance with the CO limitation by assuring compliance with **condition E4-1(SM1)**. Compliance is assured based on the following emission factors: Boiler #3: 84 lb CO/10^6 ft^3 for natural gas (AP-42, Table 1.4-1) and 5.0 lb/1000 gal for fuel oil (AP-42, Table 1.3-1); Boilers #4 and 5: 36.2 lb CO/10^6 ft^3 for natural gas (Manufacturer's information) and 5.6 lb/1000 gal for fuel oil (Manufacturer's information)

E4-8(SM1). The following annual emissions are based on the allowable emissions included in the application dated April 22, 2016. These emission totals will be used to calculate annual emission fees:

Annual Emissions for Fees (tons per year)				
PM	SO2	NOx	VOC	CO
5.21	60.36	40.43	3.77	36.70

TAPCR 1200-03-26-.02(6)

E4-9(SM1). The permittee is subject to 40 CFR part 63 subpart DDDDD if the permittee owns or operates an industrial, commercial, or institutional boiler or process heater as defined in 40 CFR §63.7575 that is located at, or is part of, a major source of HAP, except as specified in 40 CFR §63.7491. For purposes of 40 CFR part 63 subpart DDDDD, a major source of HAP is as defined in 40 CFR §63.2.

40 CFR §63.7485

E4-10(SM1). 40 CFR part 63 subpart DDDDD applies to new, reconstructed, and existing affected sources as described in paragraphs (1) and (2) of this condition.

(1) The affected source of 40 CFR part 63 subpart DDDDD is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters (Boiler 3) within a subcategory as defined in 40 CFR §63.7575. A boiler or process heater is existing if it is not new or reconstructed.

(2) The affected source of 40 CFR part 63 subpart DDDDD is each new or reconstructed industrial, commercial, or institutional boiler or process heater (Boilers 4 and 5), as defined in 40 CFR §63.7575, located at a major source.

40 CFR §63.7490

E4-11(SM1). The compliance date for Boilers 4 and 5 is the startup date of each boiler. The compliance date for Boiler 3 is January 31, 2016. The permittee must meet the notification requirements in 40 CFR §63.7545 according to the schedule in 40 CFR §63.7545 and in 40 CFR part 63 subpart A. Some of the notifications must be submitted before the permittee is required to comply with the emission limits and work practice standards in 40 CFR part 63 subpart DDDDD.

40 CFR §63.7495

E4-12(SM1). This condition applies to the existing boiler and the new boilers designed to burn gas 1 fuels. The permittee must meet the requirements in paragraphs (1) and (3) of this condition, except as provided in subparagraphs (3)(b) and (e) of this condition. The permittee must meet these requirements at all times the affected unit is operating, except as provided in subparagraph (3)(f) of this condition.

(1) The permittee must meet the work practice standard in Table 3 of 40 CFR part 63 subpart DDDDD for each boiler at the source, except as provided under 40 CFR §63.7522.

From Table 3 to Subpart DDDDD of Part 63 - Work Practice Standards

For a new boiler (Boilers 4 and 5) with a continuous oxygen trim system that maintains an optimum air to fuel ratio, the permittee must:
Conduct a tune-up of the boiler or process heater every 5 years as specified in 40 CFR §63.7540.

For an existing boiler (Boiler 3) without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater, the permittee must:
Conduct a tune-up of the boiler annually as specified in 40 CFR §63.7540. Gas 1 units will conduct this tune-up as a work practice for all regulated emissions under this 40 CFR part 63 subpart DDDDD.

For an existing boiler (Boiler 3) located at a major source facility, not including limited use units:
The permittee must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in 40 CFR §63.7575:

a. A visual inspection of the boiler or process heater system.
b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.

f. A list of cost-effective energy conservation measures that are within the facility's control.
g. A list of the energy savings potential of the energy conservation measures identified.
h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

(3) At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) As provided in 40 CFR §63.6(g), EPA may approve use of an alternative to the work practice standards in this condition.
(e) Boilers in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 of 40 CFR part 63 subpart DDDDD, or the operating limits in Table 4 40 CFR part 63 subpart DDDDD.
(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time the permittee must comply only with Table 3 of 40 CFR part 63 subpart DDDDD.

40 CFR §63.7500

E4-13(SM1). The permittee must be in compliance with the emission limits, work practice standards, and operating limits in 40 CFR part 63 subpart DDDDD. These limits apply to the permittee at all times the affected unit is operating except for the periods noted in 40 CFR §63.7500(f).

40 CFR §63.7505

E4-14(SM1). For existing affected sources (Boiler 3) (as defined in 40 CFR §63.7490), the permittee must complete the initial compliance demonstration no later than 180 days after the compliance date that is specified for the source in 40 CFR §63.7495 and according to the applicable provisions in 40 CFR §63.7(a)(2) as cited in Table 10 of 40 CFR part 63 subpart DDDDD. The permittee must complete an initial tune-up by following the procedures described in 40 CFR §63.7540(a)(10)(i) through (vi) no later than the compliance date specified in 40 CFR §63.7495. The permittee must complete the one-time energy assessment specified in Table 3 of 40 CFR part 63 subpart DDDDD no later than the compliance date specified in 40 CFR §63.7495.

40 CFR §63.7510

E4-15(SM1). If the permittee is required to meet an applicable tune-up work practice standard, the permittee must conduct an annual, biennial, or 5-year performance tune-up according to 40 CFR §63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in 40 CFR §63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in 40 CFR §63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in 40 CFR §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up.
40 CFR §63.7515

E4-16(SM1). If the permittee owns or operates an existing unit with a heat input capacity of less than 10 million Btu per hour or a unit in the unit designed to burn gas 1 subcategory, the permittee must submit a signed statement in the Notification of Compliance Status report that indicates that the permittee conducted a tune-up of the unit. The permittee must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 of 40 CFR part 63 subpart DDDDD and is an accurate depiction of the facility at the time of the assessment.

40 CFR §63.7530

E4-17(SM1). The permittee must submit to the Technical Secretary all of the notifications in 40 CFR §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to the permittee by the dates specified. If the permittee is required to conduct an initial compliance demonstration as specified in 40 CFR §63.7530, the permittee must submit a Notification of Compliance Status (submit to the Technical Secretary at the address noted in condition 25) according to 40 CFR §63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, the permittee must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to 40 CFR §63.10(d)(2). If the permittee is not required to conduct an initial compliance demonstration as specified in 40 CFR §63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (1) and (8).

(1) A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR part 63 subpart DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under 40 CFR §241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of 40 CFR §241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

(8) In addition to the information required in 40 CFR §63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
- (i) "This facility complies with the required initial tune-up according to the procedures in 40 CFR §63.7540(a)(10)(i) through (vi)."
- (ii) "This facility has had an energy assessment performed according to 40 CFR §63.7530(e)."
- (iii) Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit."

40 CFR §63.7545

E4-18(SM1). The affected facility to which 40 CFR part 60 subpart Dc applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, (Boilers 4 and 5) and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

40 CFR §60.40c

E4-19(SM1). The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

As an alternative to meeting the requirements of the above paragraph, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in 40 CFR §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. All records required under this condition shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

40 CFR §60.48c

E4-20(SM1). The permittee shall calculate monthly and annual emissions of particulate matter (PM), sulfur dioxide (SO_2), and nitrogen oxide (NO_x). The permittee shall utilize the emission factors listed in the table below. The permittee shall maintain the following log format or an alternative format which readily provides the same required information.

Monthly Fuel Usage

	Natural Gas Fuel Usage (scf/month)	Fuel Oil Usage (gal/month)	Fuel Oil Sulfur Content	Operating Hours using Fuel Oil (hr/month)
Boiler #3				
Boilers #4 & 5				
Total				

Monthly Emissions

	PM Emissions from Natural Gas (ton/month)	PM Emissions from Fuel Oil (ton/month)	Total PM Emissions (ton/month)	SO_2 Emissions from Natural Gas (ton/month)	SO_2 Emissions from Fuel Oil (ton/month)	Total SO_2 Emissions (ton/month)	NOx Emissions from Natural Gas (ton/month)	NOx Emissions from Fuel Oil (ton/month)	Total NOx Emissions (ton/month)
Boiler #3									
Boilers #4 & 5									
Total									

PM, SO_2, and NOx Emissions

	Total PM Emissions from Boilers #3, 4, 5 (ton/month)	Total PM Emissions from Boilers #3, 4, 5 (ton/12 consecutive months)	Total SO_2 Emissions from Boilers #3, 4, 5 (ton/month)	Total SO_2 Emissions from Boilers #3, 4, 5 (ton/12 consecutive months)	Total NOx Emissions from Boilers #3, 4, 5 (ton/month)	Total NOx Emissions from Boilers #3, 4, 5 (ton/12 consecutive months)
January						
February						
Etc.						
December						

Natural Gas Emission Factors

	PM Emission Factor (lb/MMscf)	SO_2 Emission Factor (lb/MMscf)	NOx Emission Factor (lb/MMscf)
Boiler #3 Natural Gas	7.6	0.6	84
Boilers #4 & 5 Natural Gas	7.6	0.6	36.5

Fuel Oil Emission Factors

	PM Emission Factor (lb/1000 gal)	SO_2 Emission Factor (lb/1000 gal)	NOx Emission Factor (lb/1000 gal)
Boiler #3 Fuel Oil	3.3	142S	24
Boilers #4 & 5 Fuel Oil	3.3	142S	24.36

S is the % sulfur

The permittee shall use the following equations:

[Monthly Emissions from Natural Gas (ton/month)] = [Fuel Usage (scf/month)] x [Emission Factor (lb/scf)]
[Monthly Emissions from Fuel Oil (ton/month)]= [Fuel Usage (gallons/month)] x [Emission Factor (lb/gallon)]
[Total Monthly Emissions (ton/month)] = [Monthly Emissions from Natural Gas (ton/month)] +
[Monthly Emissions from Fuel Oil (ton/month)]

53-0003-03:	**Source Identification:**	This Cellulose Casing Production source consists of Eleven Baratte-Vissolver Units, Eleven Extrusion Lines, Glycerin Application, and Wastewater Treatment. Emissions are controlled by a Bioway^{TM} V-Spring System biofilter. This source is subject to 40 CFR Part 63, Subpart UUUU (National Emission Standards for Hazardous Air Pollutants for Cellulose Products Manufacturing). Referred to as the Cellulose Products Manufacturing MACT.

Conditions specific to source 53-0003-03.

E5-1. Carbon disulfide emitted from this source shall not exceed 1104 tons per consecutive twelve-month period.

TAPCR: 1200-03-07-.07(2)

Compliance Method: Compliance with this limitation shall be assured with recordkeeping and by the use of a pollution control device. The records required by condition E5-2 can demonstrate compliance with this condition. Those tables contain the data necessary for compliance evaluation on a monthly basis.

E5-2. This source is subject to the requirements of 40 CFR Part 63 Subpart UUUU (NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR CELLULOSE PRODUCTS MANUFACTURING), referred to as the Cellulose Products Manufacturing MACT. The requirements are as follows:

A. Reduce total uncontrolled sulfide emissions (reported as carbon disulfide) by at least 25% based on a 6-month rolling average;
B. Route each controlled vent stream through a closed-vent system to the control device; and
C. Comply with the work practice standard for closed-vent systems.

40 CFR §63.5555

Compliance Method: Compliance with this requirement shall be assured with recordkeeping and by the use of a pollution control device. The following apply.

(1) This source shall not operate without the use of a control device during periods when specified emission limits are not being met except during maintenance periods allowed by 40 CFR §63.5505.

(2) Operation of the control device shall be in accordance with the following monitoring parameters for the Biofilter.

a. The inlet gas temperature shall be continuously monitored and recorded, via electronic data recorder, as prescribed in Table 2 (Biofilter Monitoring Data) located as Attachment 2. The inlet temperature shall operate between 68^{o}F and 119^{o}F for optimum microorganism performance. The daily average temperature of the inlet gas shall be within the range of optimum performance.
b. In lieu of the effluent pH measurement, the effluent conductivity shall be continuously monitored and recorded, via electronic data recorder, as prescribed in Table 2 (Biofilter Monitoring Data). The conductivity range for optimum efficiency is 0 to 200 mili-Siemens per centimeter.
c. The pressure drop across the filter shall be continuously monitored and recorded, via electronic data recorder, as prescribed in Table 2 (Biofilter Monitoring Data). The pressure drop range for optimum efficiency is 0 to 8 inches of water column.

(3) The owner or operator shall maintain records that demonstrate compliance with the emission standards of 40 CFR 63 Subpart UUUU. Records in the form of a log, as prescribed in Table 3 (Calculation for MACT Compliance and MACT Material Balance and Calculation of Percent Reduction of Total Sulfide Emissions) located as Attachment 3 and Table 4 (Calculation of CS_2 and H_2S Emissions – MACT Material Balance and Performance Test Information) located as Attachment 4 shall be used for this purpose. Tables 3 and 4 shall be used or substantially similar forms that convey similar information. Table 3 incorporates the

data for the viscose process changes into the material balance per 40 CFR 63.5535(g). Table 4 shall be used to demonstrate compliance with the CS_2 and H_2S emission limitations.

(4) Continuous-monitoring data may be averaged over a prescribed time period. For examples: twelve 5-minute time intervals may be averaged to obtain an hourly average for the continuous monitoring requirement and 24-hour time intervals may be averaged to obtain a daily average for compliance demonstration.

For this source, an "inventory month" shall be used as the period and shall be utilized above where the term "month" is specified. An inventory month is defined as the time period used by the owner or operator for monthly inventory purposes, and shall consist of between 28 and 34 days, inclusive. However, the inventory month for February may contain as few as 26 days. The 12-month limits shall consist of 12 consecutive inventory months. Any 12 consecutive inventory months can consist of between 360 and 370 days, inclusive. This definition of inventory month is specified in order to utilize the inventory system currently in use by the company by which inventory at the facility is assessed shortly before the end of the month. The time period and number of days of each inventory month and consecutive 12-month inventory period shall be identified on each semiannual report.

E5-3. Hydrogen sulfide (H_2S) emitted from this source shall not exceed 285 tons per consecutive twelve-month period.

TAPCR: 1200-03-07-.07(2) and the final settlement among Viskase, BCAAT , and TDEC, of December 5, 2014 resolving the petition filed by BCAAT on May 13, 2011 , Docket No.04.09-112841A (the "Appeal"), challenging TDEC's issuance of the following permits to Viskase: (1) Significant Modification to Title V Permit No. 558700; (2) Construction Permit 963557P; (3) Construction Permit 963558P; and (4) Construction Permit 963786F.

Compliance Method: Compliance with this limitation shall be assured with recordkeeping. Compliance with condition E5-2 will demonstrate compliance with this condition. Those tables contain the data necessary for compliance evaluation on a monthly basis.

E5-4. For MACT reporting purposes, the owner or operator shall comply with the requirements of 40 CFR §63.5580. The reporting schedule shall adhere to the requirements in condition E2(a) and (b) of this permit. However, the mailing address for the MACT reports is as follows:

The Technical Secretary
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Or electronically to Air.Pollution.Control@tn.gov

TAPCR: 1200-03-07-.07(2) and 40 CFR Part 63 Subpart UUUU

E5-5. For fee purposes, the maximum VOC emissions from the glycerin addition process are estimated to be 2.7 tons per year and the maximum CS_2 emissions from the wastewater treatment process are estimated to be 56.2 tons per year. These values are not included in any emission limit for this source.

TAPCR: 1200-03-26

53-0003-07:	**Source Identification:**	This source consists of four chemical storage tanks that are identical in size with dimensions of 10.5 feet diameter and 23.5 feet in length. This source is subject to 40 CFR Part 63, Subpart UUUU (National Emission Standards for Hazardous Air Pollutants for Cellulose Products Manufacturing). Referred to as the Cellulose Products Manufacturing MACT.

Conditions specific to source 53-0003-07.

E6-1. This permit is valid for the storage tanks listed below.

Tank I.D.	Contents	Capacity
18	Carbon Disulfide	14,000 Gallons
19	Carbon Disulfide	14,000 Gallons
20	Carbon Disulfide	14,000 Gallons
21	Carbon Disulfide	14,000 Gallons

Notes: 1. Other tanks which were previously designated as part of source 53-0003-07 which contain materials other than carbon disulfide are considered to be insignificant activities under the terms of 1200-03-09-.04(5)(a)4.(i).
2. Tanks that contain carbon disulfide shall not be vented directly to the atmosphere under normal operating conditions.

E6-2. Emissions from this source are subject to the provision of 40 CFR 63 Subpart UUUU. The installed Nitrogen unloading and storage system satisfies the requirement of this provision.

40 CFR Part 63, Subpart UUUU

Compliance Method: Compliance with this requirement shall be assured with annual certification in accordance with condition E2(b) of this permit.

E6-3. For MACT reporting purposes, the owner or operator shall comply with the requirements of §63.5580. The reporting schedule shall adhere to the requirements in condition E2(a) and (b) of this permit. However, the mailing address for the MACT reports is as follows:

The Technical Secretary
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Or electronically to Air.Pollution.Control@tn.gov

TAPCR: 1200-03-07-.07(2) and 40 CFR Part 63, Subpart UUUU

E6-4. For fee purposes, the maximum CS_2 emissions from this source are estimated to be 1.8 tons per year. These values are not included in any emission limit for this source.

53-0003-15:	**Source Identification:**	This source consists of the lime storage and pneumatic unloading of bulk trucks with a dust collector containing 12 polyester/dacron felt bags as control equipment.

Condition specific to source 53-0003-15.

E7-1. Particulate matter emitted from this source shall not exceed 1.36 lbs/hour based on twenty-four hour average.

TAPCR: 1200-03-07-.02(4)

Compliance Method: Compliance with this condition shall be assured with recordkeeping and by the use of a control device (baghouse). This source shall not operate without the use of a baghouse. The baghouse will be maintained, kept in good operating condition, and inspected semiannually to ensure compliance with the applicable particulate matter limits. Documentation of the semiannual inspections and any maintenance performed will be kept on site for a period of not less than five (5) years. A summary of these logs shall be kept and reported in accordance with condition E2 of this permit.

53-0003-21 This source has been removed from the permit by Significant Modification #1.

E8-1. [Reserved]. This condition has been removed by Significant Modification #1.

E8-2. [Reserved]. This condition has been removed by Significant Modification #1.

53-0003-23:	**Source Identification:**	This source consists of a generator. The generator is a caterpillar power model D-399 unit using kerosene and diesel (No.1 or No.2 fuel oil) as fuel to generate 800 KW at 2,412 Btu/KWH and 1200 rpm. This source is subject to 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). Referred to as the RICE MACT.

Conditions specific to source 53-0003-23.

E9-1. Pollutants emitted from this source shall not exceed the following:

Pollutant	Emission Rate	TAPCR
Sulfur Dioxide	5.0 lbs/hour	1200-03-14-.01(3) and agreement letter dated July 29, 1992
Nitrogen Oxides	20.125 lbs/hour	1200-03-06-.01(7) and agreement letter dated July 29, 1992
Particulates	0.6 lb/MMBtu heat input (5.8 lb/hr)	1200-03-06-.02(2)
Carbon Monoxide	2.07 lbs/hour	1200-03-06-.03
Hydrocarbons	0.12 lbs/hour	1200-03-06-.03

TAPCR: 1200-03-09-.02(6)

Compliance Method: Compliance with this requirement shall be assured by recordkeeping. The above limits are based on stack test data from Caterpillar Power Generator Model D-399 included in the facility's original Title V application, and average monthly fuel combustion rate of no more than 70 gallons per hour of fuel and a fuel sulfur content rate of no more than 0.5% by weight. Fuel Combustion Rate and Fuel Sulfur Content records are required to be maintained as prescribed in condition E9-5.

E9-2. Kerosene and diesel fuels (No. 1 and No. 2 fuel oils) only shall be used as fuels for this source.

TAPCR: 1200-03-06-.01(7)

E9-3. The sulfur content of the fuel oil, as mentioned in condition E9-2, shall not exceed 0.5 percent. Compliance with this limit shall be assured as specified in condition E4-3 of this permit.

TAPCR: 1200-03-06-.03

E9-4. The exhaust gases from the engine shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of 12 inches not less than 30 feet above ground level.

Construction permit 933378F

E9-5. The permittee shall comply with the requirement of the NESHAP/MACT (Maximum Achievable Control Technology) standards of 40 CFR Part 63 Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines (RICE). For this source to maintain limited use status, the maximum operating time shall not exceed 100 hours per calendar year.

40 CFR Part 63, Subpart ZZZZ (Limited Use Stationary RICE) §63.6675

Compliance Method: Compliance with this requirement shall be assured by recordkeeping. The owner or operator of this source shall maintain the logs as prescribed in the following formats. These logs shall be submitted in accordance with condition E2(a) of this permit.

Table 9-5. Yearly Log for Hours of Operation Year_____

MONTH	HOURS OF OPERATION	MONTH	HOURS OF OPERATION
JAN		JUL	
FEB		AUG	
ETC.		ETC.	
For year 20_____ Total Yearly Hours of Operation_____.			

END OF PERMIT NUMBER: 567428

ATTACHMENT 1

OPACITY MATRIX DECISION TREE for VISIBLE EMISSION EVALUATION by EPA METHOD 9 dated JUNE 18, 1996

Decision Tree PM for Opacity for Sources Utilizing EPA Method 9*

Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO_2, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

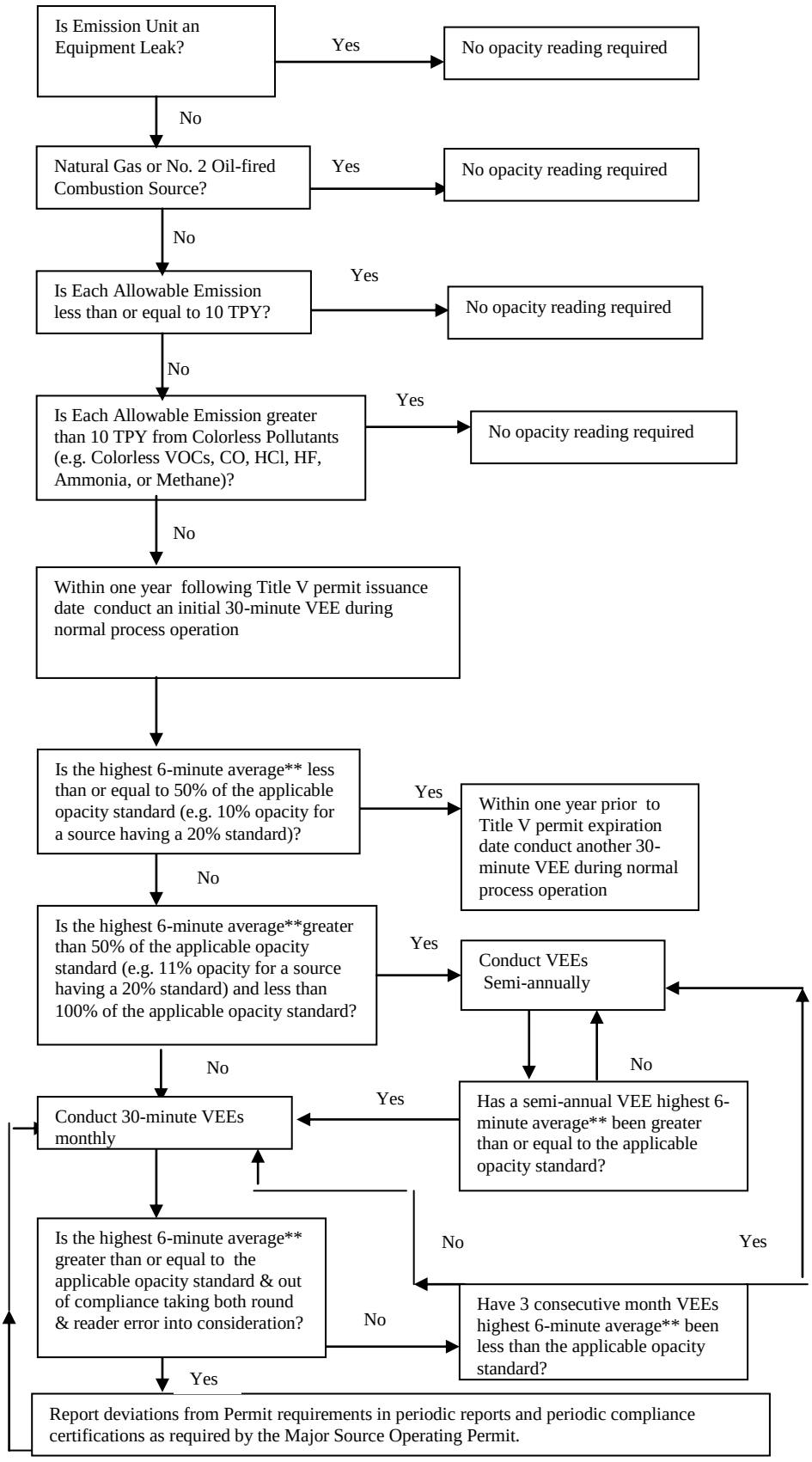
Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declares non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards:
EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996
Amended September 11, 2013



ATTACHMENT 2

Table 2: Biofilter monitoring data

Table 2. Biofilter Monitoring Data Month_____Year_____

Day	Inlet Gas Temperature (°F)	Bioreactor 1		Bioreactor 2		Bioreactor 3		Bioreactor 4	
		Effluent Conductivity (mili-Siemens/cm)	Pressure Drop (inches of water)	Effluent Conductivity (mili-Siemens/cm)	Pressure Drop (inches of water)	Effluent Conductivity (mili-Siemens/cm)	Pressure Drop (inches of water)	Effluent Conductivity (mili-Siemens/cm)	Pressure Drop (inches of water)

Note: For compliance assurance, the minimum inlet temperature is 68°F and the maximum is 119°F. The minimum conductivity is 0 mili-Siemens/cm and the maximum is 200 mili-Siemens/cm. The differential pressure drop minimum is 0 inches of water and the maximum is 8 inches of water.

Days Days are production days of the inventory month as defined in condition E5-1 of the permit.

ATTACHMENT 3

Table 3: Log used for the Cellulose MACT Compliance

Table 3
Calculation for MACT Compliance
Viskase Loudon, TN. MACT Compliance Information
MACT Material Balance and Calculation of Percent Reduction of Total Sulfide Emissions

	Input ("W")		("A")	("X")		Input	Capacity Factor Information				("U")	("R")	(BUR)*	(XUR)	("M")	(W/M)	("P")	(XUR*(1-P))	(P+ XUR*(1-P))	Need
				40.29%								80.70%		=(BUR/A)	Process Credit Info.					>= 25%
	Pounds of CS_2 Input per Month at Scale		95.0% * W	("B")		Input Non-MACT Maint. Hours in the Month with the following Number of Reactors OFFLINE				MACT Capacity Factor Uptime	(UR) Effective MACT System Removal	CS_2 Removed by MACT System	MACT System Current Removal	SAP Casing Produced	Lbs CS_2 Weighed per M Sq.m. Casing	Monthly Process Credit	MACT System Base Yr. Removal	**Overall MACT Base Yr. Removal**	**6-Month Rolling Average Removal**
Month/YR	(Lbs/Mo.)	Days	Pounds of CS_2 to Air (Lbs/Mo.)	CS_2 to MACT System (Lbs/Mo.)	Input MACT Maint. Hrs.	1	2	3	4	(%)		(Lbs/Mo.)	(%)	(M Sq.m/Mo.)		(%)	(%)	**(%)**	**(%)**
1991														1991 Base Yr:	22.92				

Overall MACT Removal % = [P + XUR*(1-P)]
This needs to be greater than or equal to 25% on a 6-Month Rolling Average for compliance
Note: The 6-Month Rolling Average weights the values for each month by the number of days in the month

W	Amount of CS_2 weighed at the scale during the month
95.00%	Percentage of CS_2 weighed that goes into the air as CS_2, H_2S, or COS based on previous testing & permit values
A	Amount of CS_2 weighed at the scale during the month that goes into the air
B	Amount of sulfides routed to the MACT equipment expressed as CS_2
X = B/A	Based on 5-23-2013, Performance Test Results & Average CS_2 used during May 2013. During performance test 40.29% of the sulfides that went into the air (expressed as CS_2) went to the control device
U	Uptime Capacity Factor Based on Each Reactor Performing Equivalently (e.g. Reduce MACT system removal capacity by 1/4 for each reactor that is OFFLINE)
R	Based on 5-23-2013, Performance Test Results with 4 Reactors On-line. During the performance test 80.70% of the sulfides (expressed as CS_2) that went to the control device were removed
BUR*	The CS_2 removed by the MACT System is adjusted to show no removal during maintenance hours by multiplying BUR by (Days*24-Maint. Hrs)/ (Days*24)
M	M Square meters of Casing produced during the month from SAP accounting system
P	Process Credit % calculated by using current Lbs of CS_2 per M Sq.meters of Casing Produced / Lbs CS_2 Weighed compared to 1991 Base Year
Days	Days are production days of the inventory month as defined in condition E5-1 of the permit.

ATTACHMENT 4

Table 4: Log used to calculate and record Carbon Disulfide (CS_2) and Hydrogen Sulfide (H_2S) emissions

Table 4
Calculation of CS_2 and H_2S Emissions
MACT Material Balance and Performance Test Information

Note: This information is the same information that is used to determine MACT compliance															*Ti*
	("W")		**("A")**	**("X")**		**Capacity Factor Information**				**("U")**	**("R")**	**(BUR)***	**(XUR)**	**72.0%**
				40.29%							**80.70%**		**=(BUR/A)**	**56.44**
			95.0%	**("B")**							**(UR)**			
			*** W**			Input Non-MACT Maint. Hours in the Month with the following Number of Reactors OFFLINE								
Month/YR	Pounds of CS_2 Input per Month at Scale (Lbs/Mo)	Days	Pounds of CS_2 to Air (Lbs/Mo)	CS_2 to MACT System (Lbs/Mo)	Input MACT Maint. Hrs.	1	2	3	4	MACT Capacity Factor Uptime (%)	Effective MACT System Removal	CS_2 Removed by MACT System (Lbs/Mo)	MACT System Current Removal (%)	CS_2 emissio (tons/m

W Amount of CS_2 weighed at the scale during the month
95.00% Percentage of CS_2 weighed that goes into the air as CS_2, H_2S, or COS based on previous testing & permit values
A Amount of CS_2 weighed at the scale during the month that goes into the air
B Amount of sulfides routed to the MACT equipment expressed as CS_2
X = B/A Based on 5-23-2013, Performance Test Results & Average CS_2 used during May 2013. During performance test 40.29% of the sulfides that went into the air (expressed as CS_2) went to the control device
U Uptime Capacity Factor Based on Each Reactor Performing Equivalently (e.g. Reduce MACT system removal capacity by 1/4 for each reactor that is OFFLINE)
R Based on 5-23-2013, Performance Test Results with 4 Reactors On-line. During the performance test 80.70% of the sulfides (expressed as CS_2) that went to the control device were removed
BUR* The CS2 removed by the MACT System is adjusted to show no removal during maintenance hours by multiplying BUR by (Days*24-Maint. Hrs)/(Days*24)
72.00% Percentage of CS_2 weighed that goes into the air as CS_2 based on previous testing & permit values
23.00% Percentage of CS_2 weighed that goes into the air as H_2S or COS (expressed in lbs CS_2) based on previous testing & permit values
Note: Multiply by MW ratio to convert lbs CS_2 to Lbs H_2S = 23%x2x34.076/76.131 = 20.6%
56.44% Percentage of MACT System removal that is CS_2 emissions
43.56% Percentage of MACT System removal that is H_2S or COS emissions
Days Days are production days of the inventory month as defined in condition E5-1 of the permit